4.8 HYDROLOGY AND WATER QUALITY

4.8.1 Environmental Setting

The project site is located within the Middle Santa Ana River watershed, with surface drainage flows generally to the south and then southwest. Flows at the site eventually enter the San Antonio Creek, the Chino Creek, and the Prado Basin, where waters join the Santa Ana River. Past Prado Basin and Prado Dam, the Santa Ana River continues southwesterly toward the Anaheim Forebay Recharge Area and the Pacific Ocean (Watershed Management Initiative, 2004, pp. 1-3 to 1-6).

Groundwater

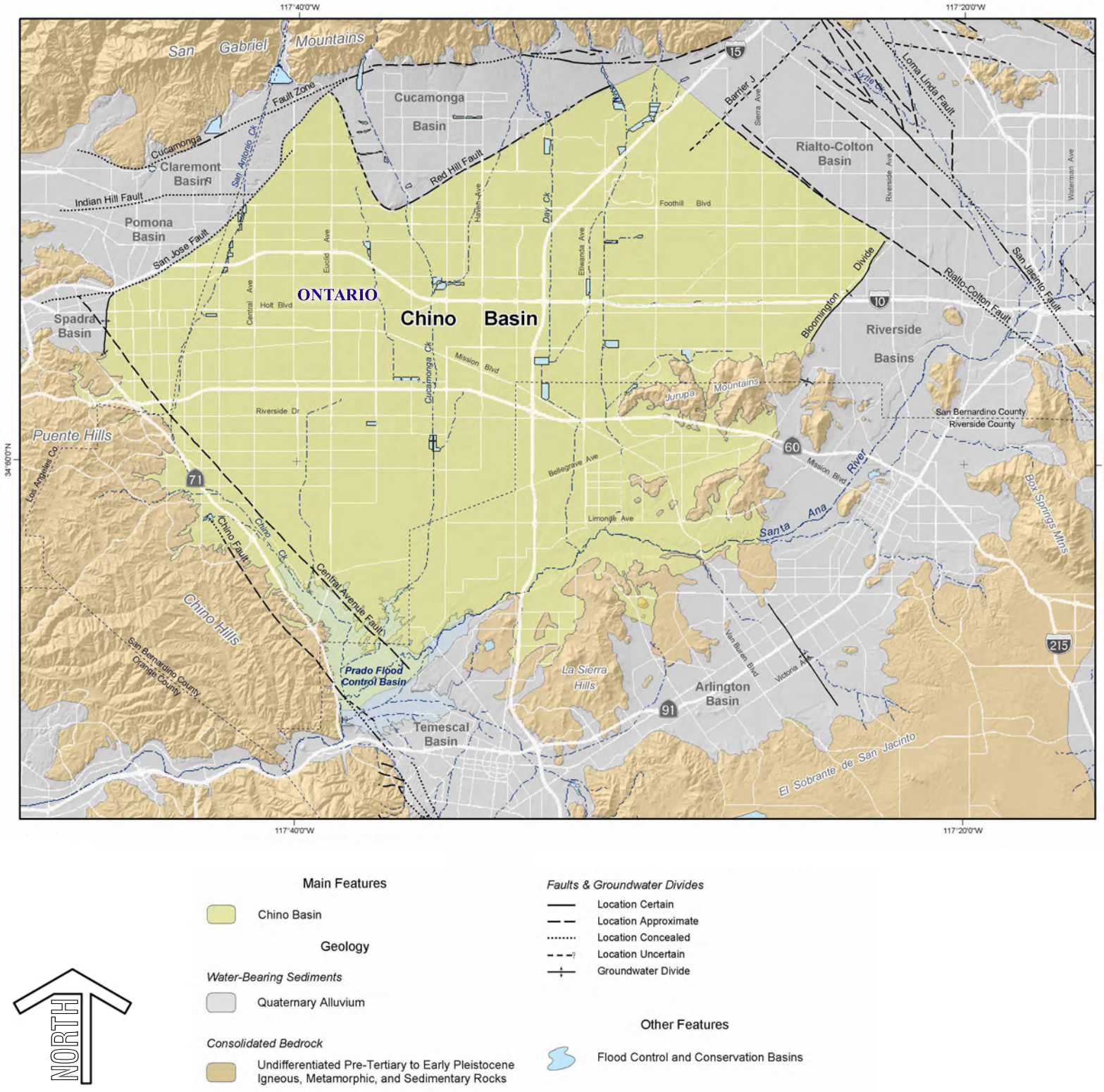
The City of Ontario is underlain by the Chino groundwater basin, which covers an approximately 235-square-mile area of the upper Santa Ana River Watershed. The basin is surrounded by the San Gabriel Mountains and the Cucamonga Basin to the north; the Rialto-Colton Fault and Basin, Jurupa Hills, and the Pedley Hills to the east; the La Sierra area and the Temescal Basin to the south; and the Chino Hills, Puente Hills, and the Pomona and Claremont Basins to the west. The basin is approximately twenty-three miles wide in an easterly/westerly direction and eighteen miles long in a northerly/southerly direction. The basin boundaries are shown in Figure 4.8-1, *Chino Basin Boundaries* (Chino Basin Optimum Basin Management Program, 2004, pp. 2-1 to 2-5).

The Chino Basin was formed by sedimentary infilling of a structural depression by eroded sediments from the San Gabriel Mountains, Chino Hills, Puente Hills, and the San Bernardino Mountains. The basin is an alluvial valley that is relatively flat from east to west and slopes from the north to the south at a one to two percent grade. The San Antonio Creek and Cucamonga Creek serve as drainage channels in the basin, with southerly flows toward to the Santa Ana River, the principal drainage course (California's Groundwater Bulletin 118, January 20, 2006). The Santa Ana River flows for approximately 96 miles across the Santa Ana Watershed, from its origin in the San Bernardino Mountains to the Pacific Ocean. Several creeks also traverse the basin, typically only carrying significant flows during winter storm events (Santa Ana Watershed Project Authority, Watershed Facts website, accessed 3/23/2007).

The bottom of the Chino Basin, which is the base of the freshwater aquifer, consists of impermeable sedimentary and igneous rocks. The base of the aquifer is overlain by older alluvium of the Pleistocene period, followed by younger alluvium of the Holocene period. The Holocene alluvium has a maximum thickness of 150 feet and the thickness of the older Pleistocene alluvium averages about 600 to 700 feet. The central part of the basin has the lowest clay content and the highest well yields, ranging from 500 to 1,000 gallons per minute (gpm). The southern part of the basin contains more clay and well yields are between 100 and 500 gpm (California's Groundwater Bulletin 118, January 20, 2006).

The total storage capacity of the Chino groundwater basin is estimated at approximately 18.3 million acre-feet. Water in storage was estimated in the Fall of 2000 to be approximately 5.325 million acre-feet. Groundwater rights in the basin are defined by a 1978 judgment in the case of the *Chino Basin MWD versus the City of Chino, et al.* Annual pumping of groundwater is adjudicated by the Chino Watermaster and was approximately 162,000 acre-feet in 2000-2001. Groundwater recharge occurs by rainfall, infiltration of stormwater or runoff, and underflow of groundwater from adjacent basins (California's Groundwater Bulletin 118, January 20, 2006).

Ontario Wal-Mart Supercenter



Source: Chino Basin Optimum Basin Management Program, 2005

Figure 4.8-1 **Groundwater Basin**

The project area is located at the western section of the Chino basin, east of the San Jose Fault, which serves as the northwestern boundary for the basin. Groundwater in this area generally flows in a south and southwestern direction. In 2003, groundwater levels near the site were estimated at 630 feet above mean sea level or approximately 482 feet below the ground surface. The base of the aquifer in this area is estimated at 120 feet above mean sea level (Chino Basin Optimum Basin Management Program, 2004 Figures 2-2 and 3-6).

Figure 4.8-2, *Groundwater Levels*, shows the Fall 2003 groundwater levels near the project site.

Surface Water

Surface water features in the City of Ontario include Cucamonga Creek, West Cucamonga Creek, Day Creek, Lower Deer Creek, and Lower Etiwanda Creek. In addition, the San Antonio Creek is located west of the City (Ontario General Plan, 1992 p. 5-1). These creeks are not located on or near the project site. The nearest creek to the site is the San Antonio Creek, approximately 2 miles west of the site (Chino Basin Optimum Basin Management Program, 2004 Figure 2-1).

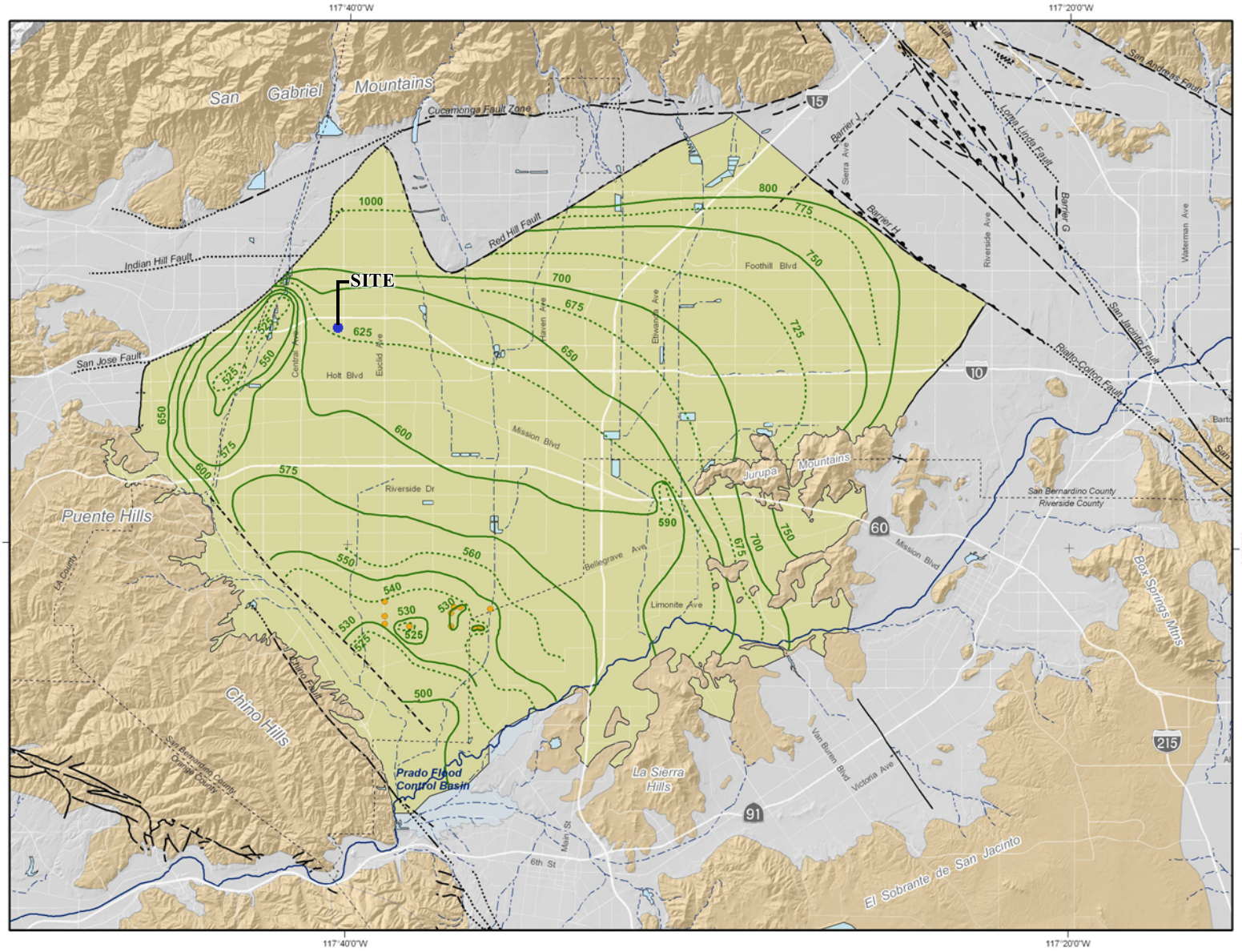
Stormwater on the project site currently sheet flows in ribbon gutters southerly toward Fifth Street and southeasterly to the south driveway on Mountain Avenue. Runoff on Mountain Avenue flows on roadway gutters toward the West State Street Storm Drain, which is located south of the Union Pacific Railroad (UPRR) tracks (EIR for Amendment No. 1, 1994 p. 3-77). In 2001, this storm drain was upgraded to a reinforced concrete box channel (Jim Borcuk, pers. comm. 11/16/2006). Stormwater in this drain is conveyed westerly toward the San Antonio Creek Channel. The San Antonio Creek Channel flows southwesterly through the cities of Claremont, Upland, Montclair, Pomona, and Chino and joins Chino Creek east of the Chino Valley (State Route 71) Freeway and north of Chino Avenue. Chino Creek then continues south and roughly parallel to the SR 71 Freeway, flowing into the Prado Flood Control Basin at Prado Regional Park, near the San Bernardino-Riverside County line. From the Prado Basin and Dam, stormwater flows into the Santa Ana River southwesterly toward the Anaheim Forebay Recharge Area and the Pacific Ocean (San Antonio and Chino Creeks Channel Feasibility Study, 1998 p. 9).

Flood Hazards

The project site is located outside the 100-year floodplain, as mapped by the Federal Emergency Management Agency. In addition, the site is outside the 500-year San Antonio Creek floodplain as defined by the United States Army Corps of Engineers (FEMA, Flood Insurance Rate Map, 1996). Thus, no flood hazards are present on or near the site.

However, the presence of the San Antonio Dam, approximately 5.0 miles north of the project site, poses inundation hazards to the site and the surrounding area. The San Antonio Dam is an earthen-filled flood control dam, measuring approximately 3,850 feet wide and 135 feet high and regulates flows from a 26.7-square-mile area of the San Gabriel Mountains. The outlet of the dam discharges into San Antonio Creek. When fully open, the dam can discharge up to 11,800 cubic feet per second (cfs) of water but it is regulated to discharge a maximum of 8,000 cfs (San Antonio and Chino Creeks Channel Feasibility Study, 1998 p. 33-34).

Ontario Wal-Mart Supercenter



Source: Chino Basin Optimum Basin Management Program, 2005

Figure 4.8-2 **Groundwater Levels**

Failure of the dam poses potential inundation hazards to areas located south of the dam, with waters from the dam expected to reach the site approximately 40 minutes after failure. Peak elevations in flood waters are estimated at approximately 6 feet on the site 1 hour after dam failure. An emergency action and notification plan has been prepared for the dam, to allow for the early notification of residents and businesses within the dam's inundation area and to reduce personal injury and property damage (Flood Emergency Plan, San Antonio Dam, 1986 Plate 1).

4.8.2 Threshold of Significance

According to Appendix G of the CEQA Guidelines, a project could have a significant adverse impact on hydrology and water quality, if its implementation results in any of the following:

- Violates any water quality standards or waste discharge requirements;
- Substantially depletes groundwater supplies or interferes substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted);
- Substantially alters the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site;
- Substantially alters the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
- Creates or contributes runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;
- Otherwise substantially degrades water quality;
- Places housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;
- Places within a 100-year flood hazard area structures which would impede or redirect flood flows;
- Exposes people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam; or, inundation by seiche, tsunami, or mudflow.

4.8.3 Environmental Impacts

The proposed project would change the local hydrology and stormwater quality due to the demolition of existing buildings and construction of a new building, as well as the reconstruction of the storm drain system on and near the site. Roadway and utility improvements that would be underground or at grade would not affect the local hydrology.

Water Quality Standards or Waste Discharge Requirements *(Would the project violate any water quality standards or waste discharge requirements?)*

Demolition and construction activities associated with the project could lead to pollutants entering the storm drainage system. These may include demolition wastes, construction debris, construction equipment fuels, oil and grease, construction materials and solvents, stockpiles, loose soils, and organic waste materials. Discharge of these materials into the storm drain system would lead to pollutants in the

runoff, which could degrade stormwater quality and downstream surface water sources (Stormwater BMP Handbook - Construction, 2003 p. 1-5).

In accordance with Title 6, Chapter 6 of the Ontario Municipal Code, the project will need to comply with the National Pollutant Discharge Elimination System (NPDES) General Permit for Construction Activity. This regulation requires the developer to file a Notice of Intent with the Regional Water Quality Control Board (RWQCB) and to prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) for construction activities on sites of one acre or more. The SWPPP would include erosion control, sediment control, tracking control, and other stormwater pollution control measures or best management practices (BMPs) that would be implemented during construction activities, and would minimize the discharge of pollutants into the stormwater and existing drainage channels to the maximum extent practicable (NPDES General Permit, 2004 pp. 1-3). With implementation of the SWPPP, impacts from project construction are expected to be less than significant.

The operation of the proposed Wal-Mart Supercenter would generate wastewater and stormwater. Wastewater would come from restroom and kitchen facilities and would be discharged into the sewer system for treatment at the RP-1 Treatment Plant. This wastewater would not be discharged in to waters of the State, such that it may violate water quality standards of the RWQCB (Jun Martirez, pers. comm. 4/5/2007). Wastewater from the kitchen facilities would pass through an oil-grease interceptor and would not require additional treatment at the RP-1 Treatment Plant (Berlinda McCadney, pers. comm. 3/28/2007). Wastewater disposal is discussed in more detail in Section 4.12.2, *Utilities - Sewer Services*.

Post construction, stormwater generation would consist of rainfall runoff, outdoor water use, and irrigation overflows from the site. Stormwater pollutant sources include vehicles in the parking lot, organic materials in landscaped areas, waste and debris in the runoff path, outdoor maintenance activities, garden center wash downs, and other activities that could potentially result in wastewater and pollutants affecting stormwater quality. Pollutants that may enter the stormwater include oil, grease, vehicle fluids, and other pollutants coming from parked vehicles on the site; soil, mulch, plant materials, fertilizers, and pesticides in the landscaped areas; and sediment, silt, debris, trash, fertilizers, and pesticides from the outdoor garden center, and other pollutants from the loading docks and outdoor areas (Model Water Quality Management Plan Guidance, 2005 p. 2-3).

Wastewater that violates discharge requirements would not be allowed to be conveyed to the storm drain system and would need to be treated on-site and/or conveyed to the sewer system prior to disposal (Model Water Quality Management Plan Guidance, 2005 pp. 2-21 to 2-22).

Projects that generate urban runoff pollutants are required under Title 6, Chapter 6 of the Ontario Municipal Code and the NPDES to develop and implement a Water Quality Management Plan (WQMP), which identifies the site design, source control, and treatment control best management practices (BMPs) that would effectively prohibit non-stormwater discharges from entering into the storm drain system and reduce the discharge of pollutants into stormwater conveyance systems to the maximum extent possible. The project would need to prepare a WQMP as part of the construction documents for review and approval by the City, during the plan check process and before issuance of the building permit for the project. The WQMP would identify permanent BMPs that would be constructed as part of the project and implemented during on-site operations to reduce pollutants entering the storm drain system (Model Water Quality Management Plan Guidance, 2005 pp. 2-9 to 2-19).

The project proposes a combination of a filtration vault, underground infiltration units, and landscaped swales to treat stormwater prior to off-site discharge. A Vortechs filtration vault would be provided near the main driveway on Mountain Avenue, connecting to a Rainstore[3] underground detention system, which would be located in a drive aisle along the site's eastern boundary. Runoff from the northern section of the site would flow into the Vortechs filtration vault and the Rainstore[3] underground detention system, with overflows entering the proposed storm drain line on Mountain Avenue. The proposed storm drain line would run from Sixth Street to just south of the intersection of Fifth Street, where the stormwater will flow out into the street through a proposed catch basin (Design Review – Utility Plan, November 2005).

The Vortechs filtration vault would remove sediment, particles, free oil, and debris from the runoff (Contech website, accessed 3/12/2007). The Rainstore[3] underground detention system would consists of plastic geogrids that would serve as an underground retention basin, allowing for the slow infiltration of runoff into the soils (Rainstore[3] website, accessed 3/12/2007).

The proposed landscaped areas behind the low wall along Fifth Street would also be utilized as infiltration areas for stormwater at the site, with runoff flows entering the landscaped areas through curb cuts. Another landscaped strip within the parking lot would serve as a linear infiltration basin, with easterly flows toward a storm drain line that would connect to the Vortechs filtration vault and Rainstore[3] underground detention system (Design Review – Utility Plan, November 2005). The landscaped swales would be constructed as shallow channels lined with grass, which would remove suspended solids and trace metals (such as lead and zinc) by filtration through the grass and infiltration through the soil (Stormwater BMP Handbook – New Development and Redevelopment, 2003 TC-30 Vegetated Swale).

These treatment control BMPs would be part of the WQMP that would be implemented on the site and would serve to remove pollutants from the runoff and prevent these pollutants from entering the groundwater and the stormwater (Model Water Quality Management Plan Guidance, 2005 p. 1-1). Runoff from the site is expected to contain minimal pollutants that could impact the downstream San Antonio Creek, Chino Creek, and the Santa Ana River. Thus, impacts on stormwater quality are expected to be less than significant.

Groundwater Supplies *(Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?)*

No water wells are proposed as part of the project; thus, the project would not directly withdraw groundwater. Construction of the proposed project would not interfere with groundwater recharge, since the site does not serve as a recharge basin and would remain largely paved (Design Review Plans, November 2005). Groundwater is expected to be located approximately 482 feet below the surface (Chino Basin Optimum Basin Management Program, 2004 Figure 3-6). Excavation and grading activities, as associated with building foundations, roadway and utility line upgrades and replacements, would not be deep enough to affect these groundwater resources. No direct impacts to the underlying groundwater resources are expected with the project.

The proposed project would create a long-term demand for water to be used in restrooms, for food service, landscape irrigation, and maintenance activities. This water demand may lead to an increase in groundwater pumping from local wells. The Ontario Utilities Department has indicated that there are

adequate water supplies and storage capacity to serve the proposed project. Implementation of water conservation measures and the use of reclaimed water by the project would reduce demand for groundwater resources (Reymundo Trejo, pers. comm. 3/27/2007). Based on the City's Urban Water Management Plan (UWMP), local and imported water supplies are expected to be available to meet the water demand of the City to the year 2030 (UWMP, 2005 p. 7-5). Water service and demand is discussed in Section 4.12.1, *Utilities – Water Services*. Indirect impacts on groundwater supplies would be less than significant.

Stormwater runoff from the site may include pollutants that could degrade groundwater quality, if large amounts of pollutants are allowed to percolate into the soil. However, the site will remain largely paved and ground percolation and infiltration would be confined to the landscaped areas and at the proposed underground detention system (Design Review Plans, November 2005). As discussed above, stormwater impacts are expected to be less than significant.

Change in Drainage Patterns *(Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?)*

The site is developed and largely paved. This would not change with the proposed project. The project would change existing hydrology through the demolition of the existing structures and parking lot and the construction of the proposed building, drive aisles, parking areas, and walkways. However, the change in drainage patterns would be internal to the site and would not adversely impact regional hydrology or drainage flows in the surrounding area. No increase in runoff from the site would occur, which may lead to downstream erosion or siltation (Design Review Plans, November 2005). No adverse impacts to drainage patterns on the site or changes in the course of downstream channels are expected.

Increase in Surface Runoff *(Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? Would the project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?)*

The impervious surface area at the site would be less than under existing conditions, as more landscaped areas within the setback areas and parking lot would be provided. Thus, runoff volumes are likely to decrease over existing conditions. In addition, the use of the Rainstore[3] underground detention system and the landscaped swales would allow for the infiltration of runoff into the soils; thus, decreasing off-site flows (Design Review Plans, November 2005). Downstream storm drainage facilities would not need to accommodate additional runoff from the site.

Treated excess runoff would be discharged into Mountain Avenue and would flow southerly toward the West State Street Storm Drain, San Antonio Creek Channel, Chino Creek, and the Santa Ana River. The project would not alter existing drainage patterns or the course of a stream or river or cause erosion or siltation downstream of the site.

The San Antonio Creek has a 60.45-square-mile watershed and Chino Creek has a 90-square-mile watershed (San Antonio and Chino Creeks Channel Feasibility Study, 1998, page 9). San Antonio Creek at Mission Boulevard has a capacity for 13,400 cubic feet per second (cfs) of water inflow and Chino Creek at Los Serranos Road has a capacity for 75,400 cfs of water inflow (San Antonio and Chino Creeks Channel Feasibility Study, 1998, page 63).

Design runoff from the 16.29-acre project site is roughly estimated at approximately 60 cfs and would represent an insignificant proportion (0.45 percent of capacity of San Antonio Creek at Mission Boulevard) of the total runoff volume when compared to the water volumes handled by San Antonio Creek, Chino Creek, and the Santa Ana River and the relative size of the site (16.29 acres or 0.025 square mile) compared to the size of the watershed of tributary creeks and the Santa Ana River watershed (2,800 square miles) (Santa Ana Watershed Project Authority, Watershed Facts website, accessed 3/23/2207). Thus, no significant adverse impacts are expected on the runoff volumes and rates in water bodies downstream of the site.

Change in Water Quality *(Would the project otherwise substantially degrade water quality?)*

RWQCB's *Water Quality Control Plan for the Santa Ana River* provides water quality standards for water resources in the region and an implementation plan to maintain these standards. The Plan discusses the existing water quality, beneficial uses of the ground and surface waters, and local water quality conditions and problems. The Plan also sets water quality goals and is used as a basis for the basin's regulatory programs (Water Quality Control Plan for Santa Ana River, 1995 pp. 1-1 to 1-2).

As indicated earlier, the project site drains into the West State Street Storm Drain, San Antonio Creek, Chino Creek, Prado Basin, the Santa Ana River, and the Pacific Ocean. San Antonio Creek is not listed as an impaired water body. Reach 1 of Chino Creek is listed as a Clean Water Act (CWA) Section 303(d) impaired water body due to bacteria/pathogens and nutrients. Dairies and agricultural operations are identified as the potential source of contamination within a 7.8-mile stretch of Chino Creek. Chino Creek ends at the Prado Basin, where Reach 3 of the Santa Ana River cuts through the basin and ends at Prado Dam. Reach 3 of the Santa Ana River is listed as a CWA Section 303(d) impaired water body due to bacteria and pathogens. Contamination within the 26-mile stretch of Reach 3 of the Santa Ana River is attributed to the presence of dairies in the area (2006 Clean Water Act Section 303(d) List of Water Quality Limited Segments, Region 8 – Santa Ana, October 2006).

The proposed parking lot at the project site would generate bacteria and nutrients that could add to the impairment of Chino Creek and the Santa Ana River. However, the proposed underground detention system and landscaped infiltration areas are expected to remove bacteria and nutrients from the runoff. The project would also have the potential to generate pesticides, sediments, and oxygen demanding substances. In addition, heavy metals, organic compounds, trash and debris, and oil and grease could be expected from the parking lot (Model Water Quality Management Plan Guidance, 2005 p. 2-3). These pollutants would be removed to some degree by the Vortechs filtration vault, Rainstore^3 underground detention system, and landscaped swales that would be provided on-site (Stormwater BMP Handbook – New Development and Redevelopment, 2003 TC-30 Vegetated Swale, TC-50 Water Quality Inlet, and TC-12 Retention/Irrigation). Development and implementation of a Water Quality Management Plan would ensure that no conflict with the Water Quality Control Plan for the Santa Ana River would occur with the proposed project. Impacts related to changes in water quality are expected to be less than significant.

Flood Hazards (*Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?)*

There are no flood hazards on or near the site (FEMA, Flood Insurance Rate Map, 1996). The proposed project would involve the demolition of existing vacant commercial structures and parking lot and

construction of a new commercial structure and parking lot. The amount of impervious areas on the site is expected to decrease due to the provision of more landscaped areas than existing. In addition, the proposed the Vortechs filtration vault, Rainstore[3] underground detention system, and landscaped swales would retain and treat stormwater on-site (Design Review Plans, November 2005). Thus, off-site runoff flows are likely to decrease over existing conditions. The project would not result in flooding on- or off-site.

The project would also include the construction of a storm drain line on Mountain Avenue, from Sixth Street to Fifth Street, to eliminate the surface flows that are currently coming from the storm drain line that ends on Sixth Street (Chris Chew, pers. comm. 2/1/2007). Thus, the potential for street flooding would be reduced by the project.

No housing units are proposed as part of the project, and the project site is not located within the 100-year floodplain. The project would not place housing within a 100-year floodplain, as mapped in Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map or other flood hazard delineation map for the area (FEMA, Flood Insurance Rate Map, 1996). The project would also not would impede or redirect flood flows. No adverse impacts related to flood hazards are expected.

Inundation Hazards *(Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam; or, inundation by seiche, tsunami, or mudflow?)*

The project site is located downstream of the San Antonio Dam. While failure of the dam is very unlikely, hazards may be posed if failure were to occur while the dam is at or near full capacity; a complete and sudden breach of the dam occurs (rather than partial failure which would allow water to be released slowly into containment channels); or sabotage, earthquake or erosion during periods of extremely heavy rain occur (Ontario General Plan, 1992 p. 3-7).

Failure of the San Antonio Dam may lead to the release of waters that would reach the site approximately 40 minutes after failure, with waters estimated to be as much as 6 feet deep. Floodwaters would reach most of south Ontario with a depth of 2 feet within four hours. An emergency action and notification plan has been established by the U. S. Army Corps of Engineers to protect residents and businesses within the dam's potential inundation area. Following guidelines in the Emergency Action and Notification Plan would reduce personal injury and property damage, to the extent feasible (Flood Emergency Plan, San Antonio Dam, 1986 pp. 2-3 and Plate 1).

While the project would be exposed to these inundation hazards, it would not increase these hazards at the site or the surrounding area. Impacts relating to dam inundation are expected to be less than significant.

The project site and the surrounding areas are located inland and would not be subject to tsunami hazards. The project area has a relatively flat topography; and there are no hillside areas nearby, which may create mudflow hazards (USGS Ontario Quadrangle, 1978). In addition, there are no large open bodies of water near the project site, which may lead to seiche hazards. Therefore, there is no risk of significant loss, injury, or death involving inundation by seiche, tsunami, or mudflow at the project site. No impacts relating to seiche, tsunami, or mudflow are expected.

4.8.4 Previous Analysis

To the extent applicable, this Subsequent EIR tiers off previous environmental documents relating to the development of the project site. As outlined in Section 1.2.1, *Previous Environmental Review*, previous analyses include a Supplemental EIR considering the environmental impacts associated with future development within the Mountain Village Specific Plan area (which included the project site) and the EIR analyzing the environmental impacts of new development and redevelopment within the Added Area, which was part of Amendment No. 1 to the Ontario Redevelopment Project No. 2.

While baseline conditions in this Subsequent EIR reflect the present situation, the linkages between the three documents remain pertinent to the environmental review of the Wal-Mart Supercenter proposal. The following discussion summarizes the salient points of similarity/difference between the previous documents and the Subsequent EIR and, where similar impacts are present, applicable policies, standard conditions or mitigation measures in the previous documents are identified for incorporation or implementation by the current project, where appropriate.

Supplemental EIR for Mountain Village Specific Plan

The Supplemental EIR for the Mountain Village Specific Plan indicated that new development and redevelopment projects under the proposed Specific Plan would reduce the amount of impermeable surfaces compared to historical uses and impacts would be insignificant. A number of storm drain system improvements are planned for the area to address street flooding.

The Supplemental EIR for the Mountain Village Specific Plan indicated that construction of future developments in the Specific Plan area would introduce pollutants into the storm drain system, as construction debris may enter the storm drain system and pollute runoff waters. Compliance with the NPDES and the City's stormwater programs and standards and implementation of best management practices would protect runoff quality and impacts would be insignificant.

The redevelopment of the project site would lead to a reduction in impervious surfaces at the site. As discussed above, a Stormwater Pollution Prevention Plan designed to reduce pollutants in the runoff during demolition and construction activities would be required. In addition, permanent treatment control measures, such as infiltration landscaped areas, Vortechs filtration vault, and Rainstore^3 underground detention system, would be provided to reduce pollutants, runoff volumes, and runoff rates from the site.

The Supplemental EIR for the Mountain Village Specific Plan indicated that Mountain Avenue is subject to sheet flow during heavy rains and identified improvements to the storm drain system along Mountain Avenue that would prevent future flooding of the area. Coordination with other agencies and reduction of runoff from individual sites would reduce impacts to less than significant levels. The proposed project would include the construction of a storm drain line on Mountain Avenue, from Sixth Street to Fifth Street, to reduce street flooding in the area.

The Supplemental EIR for the Mountain Village Specific Plan indicated that no impacts associated with seiche, tsunami or volcanic activity are expected in the Specific Plan area. The proposed Wal-Mart Supercenter would not be exposed to tsunami, seiche, or mudflow hazards.

The Initial Study for the Mountain Village Specific Plan referred back to the EIR for Amendment No. 1 regarding impacts associated with the San Antonio Dam. Inundation hazards on the site are considered less than significant, as discussed earlier.

The Supplemental EIR for the Mountain Village Specific Plan provided standard conditions and mitigation measures for storm drainage. These are listed below, along with the project's compliance with each one.

Standard Condition/Mitigation Measure	Project Compliance
SC 4.6.4-1: The proposed project shall comply with the City's stormwater management program and standards, Best Management Practices (BMPs) and National Pollution Discharge Elimination System (NPDES) requirements.	The project would implement BMPs as part of demolition and construction activities and for long-term operation, in accordance with the NPDES and City requirements. The project would comply with these standard conditions, as provided below.
SC 4.6.4-2: The City will collect storm drain impact fees which are require for new development or redevelopment.	The project would be required to pay storm drain fees, as part of the City's development impact fees. The project would comply with this standard condition, as provided below.
MM 4.6.4-1: A hydrology/drainage study shall be prepared for the proposed project addressing all drainage related on-site and off-site concerns including the effects of recent upstream improvements, cumulative storm runoff effects, effects to highway drainage, as well as the need for additional storm drain facilities/improvements.	A hydrology study will be prepared as part of the final construction documents (Chris Chew, pers. comm. 2/1/2007). No increase in impervious areas that may result in increases in runoff volumes and rates are expected with the proposed project.
MM 4.6.4-2: During site plan/parcel map review, the City shall determine the need for installation of a "dry system" at Mountain Avenue and Sixth Street as necessitated by a detailed drainage analysis.	The site is not located near the intersection of Mountain Avenue and Sixth Street. This mitigation measure is not applicable to the project.
MM 4.6.4-3: Consideration should be given to utilizing proposed parking areas as detention facilities to reduce the peak runoff leaving the site.	The project includes the use of setback areas and landscaped swales/strips in the parking lot as infiltration basins to reduce runoff volumes and remove pollutants in the runoff. A Rainstore^3 underground detention system would also be provided to allow for the percolation of stormwater into the ground and to reduce runoff flows.

The project would comply with the standard conditions and applicable mitigation measures in the Supplemental EIR for the Mountain Village Specific Plan.

EIR for Amendment No. 1

The EIR for Amendment No. 1 indicated that new development and redevelopment within the Added Area, including the site, could lead to increases in stormwater runoff and decreases in ground percolation, as well as downstream flooding. Ongoing improvements to downstream facilities are expected to reduce flooding potential. Flood control projects implemented under the Redevelopment Plan are also expected

to reduce flood hazards in the area. The EIR also indicated that future development and redevelopment in the Added Area could lead to changes in water quality due to activities that may generate urban contaminants. Compliance with NPDES requirements and the City's stormwater standards is expected to prevent the degradation of stormwater quality.

The proposed project would decrease impervious surfaces on the site and increase ground percolation as more land area would be devoted to landscaping and a Rainstore[3] underground detention system would be installed. Thus, increase in runoff volumes that may lead to downstream flooding would not occur with the project. As stated earlier, the project would also include the construction of a storm drain line along Mountain Avenue, which would reduce street flooding. The project would comply with NPDES requirements and the City's stormwater standards to prevent stormwater pollution.

The EIR for Amendment No. 1 indicated that flood hazards in the Added Area are confined to heavy street flows. Ongoing improvements on downstream facilities are expected to reduce flooding potential. Flood control projects implemented under the Redevelopment Plan are also expected to reduce flood hazards in the area. The proposed project would include the construction of a storm drain line on Mountain Avenue, from Sixth Street to Fifth Street, to reduce street flooding in the area.

The EIR for Amendment No. 1 indicated that failure of San Antonio Dam would lead to inundation of the Added Area, including the site. This impact was considered less than significant. Inundation hazards on the site are considered less than significant, as discussed earlier.

The Initial Study for Amendment No. 1 indicated that there are no tsunami, seiche, or mudflow hazards within the Added Area. The proposed Wal-Mart Supercenter would not be exposed to tsunami, seiche, or mudflow hazards.

~~As analyzed in the previous EIR, no significant adverse impacts on hydrology and water quality are expected with the project. No mitigation measures for hydrology and water quality are provided in the EIR for Amendment No. 1. However,~~P ~~p~~olicies in the Ontario General Plan, which would reduce and eliminate potential hydrologic impacts, were outlined in the EIR. The policy in the EIR is listed below, along with the project's compliance.

General Plan Policy in EIR	Project Compliance
1. Promote and where possible, require water saving policies, programs and devices, which minimize reliance of local users on imported water. Vigorously pursue reductions in per capita water consumption for both homes and businesses. In cooperation with Chino Basin Municipal Water District (CBMWD – now the Inland Empire Utilities Agency), encourage water conservation by the inclusion and placement of water-saving equipment and landscaping in new and existing development. Specify and require low flow fixtures and dry climate plant materials (xeriscape) in the Development Code, both for new projects and for rehabilitation of existing buildings.	The proposed project would utilize water-efficient appliances and irrigation systems, as required under the Uniform Plumbing Code and Title 6, Chapter 8 of the Ontario Municipal Code. Most of the proposed landscaping materials are drought-tolerant plants, in compliance with the recommendations in the Mountain Village Specific Plan.

The EIR for Amendment No. 1 also included mitigation measures to reduce potential adverse impacts on storm drainage. These are listed below, along with the project's compliance.

Mitigation Measure	Project Compliance
2. The Agency shall work with other City departments and responsible agencies to prioritize the construction of storm drain improvements on Mountain Avenue, to prevent flood hazards to residents and businesses in the Added Area. The Agency shall also coordinate with the County Flood Control Department and the U.S. Army Corps of Engineers on downstream flood control improvements to reduce the potential for flooding that may be created by future redevelopment projects.	The project would provide a storm drain line along the site boundaries on Mountain Avenue, to serve the project site and the surrounding area (Chris Chew, pers. comm. 2/1/2007).

The proposed project would also comply with NPDES requirements and the City's stormwater regulations under Title 6, Chapter 6 (Stormwater Drainage System) of the Ontario Municipal Code.

Based on the comparative discussion above, the project's impacts are no different than those analyzed in the previous EIRs.

4.8.5 Standard Conditions and Mitigation Measures

Standard Conditions

In addition to other project-specific conditions which may be imposed by the City, the City will impose the following standard conditions on the project as part of any future approval:

Standard Condition 4.8.1: The project shall comply with Title 6, Chapter 6 (Stormwater Drainage System) of the Ontario Municipal Code and the NPDES General Permit for Construction Activity, which require projects on one acre or more to notify the RWQCB and implement a Stormwater Pollution Prevention Plan (SWPPP) for construction activities. (Supplemental EIR for Mountain Village Specific Plan)

Standard Condition 4.8.2: The project shall comply with Title 6, Chapter 6 (Stormwater Drainage System) of the Ontario Municipal Code and the NPDES regarding the preparation and implementation of a Water Quality Management Plan for on-site runoff mitigation and treatment and other best management practices for permanent stormwater pollutant mitigation. (Supplemental EIR for Mountain Village Specific Plan)

Standard Condition 4.8.3: The project shall provide the necessary on-site and off-site storm drain infrastructure, in order to prevent the creation of flood hazards, as approved by the Ontario City Engineer. (EIR for Amendment No. 1)

Standard Condition 4.8.4: The project shall pay storm drain impact fees, as required by the City. (Supplemental EIR for Mountain Village Specific Plan)

Standard Condition 4.8.5: The project shall prepare a hydrology study as part of the final construction documents for review and approval by the City. (Supplemental EIR for Mountain Village Specific Plan)

Mitigation Measures

Implementation of the standard conditions would prevent significant adverse impacts on hydrology and water quality. No mitigation measures are recommended. Also, no mitigation measures for hydrology and water quality are provided in the Supplemental EIR for the MVSP or the EIR for Amendment No. 1, outside of those incorporated into the project (i.e., storm drain line on Mountain Avenue).

4.8.6 Unavoidable Significant Adverse Impacts

Preliminary analysis in the Initial Study (IS) for the project indicated that no significant impacts associated with flooding, seiche, tsunami, or mudflow are expected on-site or with the project. Less than significant impacts to downstream water quality, surface water, and stormwater drainage systems were expected. The analysis in this Subsequent EIR, as provided above, comes to the same conclusions but provides detailed analysis of potential impacts to stormwater quality and drainage systems and identifies relevant standard conditions that would ensure impacts remain less than significant.

The analysis in this section indicates that the proposed Wal-Mart Supercenter would provide the necessary on- and off-site storm drain system and infrastructure improvements and would not increase off-site runoff volumes and rates. The project has the potential to generate stormwater pollutants during construction and operation of the project. Best management practices would be implemented during demolition and construction activities as part of the SWPPP, to minimize the amount of pollutants entering stormwater runoff. Also, the project would provide landscaped infiltration areas, a Vortechs filtration vault, and a Rainstore[3] underground detention system to reduce pollutants in the runoff during operation of the Wal-Mart Supercenter, as part to the Water Quality Management Plan (WQMP) for the project. No significant adverse impacts on water and hydrology are anticipated from the project, with implementation of the standard conditions. Thus, no unavoidable significant adverse impacts are expected.